

Backflow Protection

A. ALL INDUSTRIAL, COMMERCIAL AND MULTI-FAMILY DWELLING SERVICE CONNECTIONS SHALL HAVE APPROPRIATE BACKFLOW PROTECTION INSTALLED AND MAINTAINED BY OWNER.

B. ANY DOMESTIC SERVICE WITH A FIXTURE EXCEEDING 20 FEET ABOVE WATER MAIN SHALL HAVE APPROPRIATE BACKFLOW PROTECTION INSTALLED AND MAINTAINED BY OWNER.

C. ALL BACKFLOW PREVENTION DEVICES SHALL BE LOCATED AS CLOSE AS PRACTICAL TO THE USERS CONNECTION AND SHALL BE INSTALLED ABOVE GRADE AND IN A MANNER WHERE IT IS READILY ACCESSIBLE FOR TESTING AND MAINTENANCE.

D. ALL BACKFLOW PREVENTION DEVICES MUST BE TESTED BY A CERTIFIED TESTER AT LEAST ANNUALLY AND IMMEDIATELY AFTER INSTALLATION, RELOCATION OR REPAIR. NO NEW SERVICE SHALL BE DEEMED ACCEPTABLE UNTIL TESTED AND CERTIFIED AFTER INSTALLATION.

E. ALL BACKFLOW PREVENTION DEVICES MUST BE APPROVED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES.

APPROVED:

R. E. Ricketts
CITY ENGINEER

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS

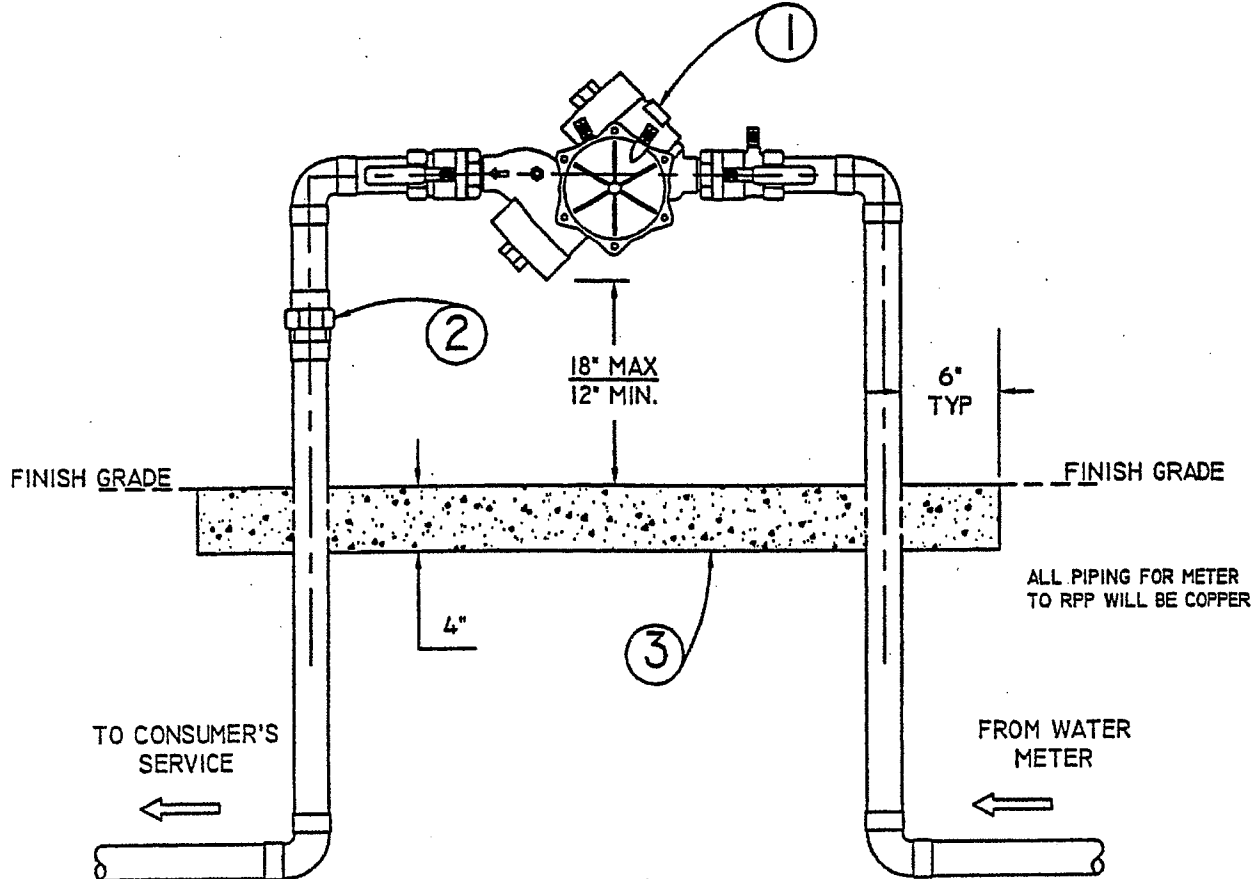


DATE: 6/23/99

BACKFLOW PROTECTION NOTES

STANDARD PLAN

617A



GENERAL NOTE:

- ALL BACKFLOW PREVENTION DEVICES SHALL BE LOCATED ABOVE GROUND, SCREENED FROM VIEW AS APPROVED BY THE CITY OF HUNTINGTON BEACH LANDSCAPE ARCHITECT, AND INSTALLED AS CLOSE AS PRACTICAL TO THE WATER METER AND SHALL BE INSTALLED IN A LOCATION THAT IS READILY ACCESSIBLE FOR TESTING AND MAINTENANCE AS APPROVED BY WATER DIVISION.
- IMMEDIATELY AFTER INSTALLATION, RELOCATION OR REPAIR, ALL BACKFLOW PREVENTION DEVICES SHALL BE TESTED BY A CERTIFIED TESTER APPROVED BY THE CITY. NO SERVICE SHALL BE DEEMED ACCEPTABLE UNTIL THE DEVICE IS TESTED AND CERTIFIED AFTER INSTALLATION.
- RISERS AND TUBING SHALL BE TYPE "K" RIGID COPPER AND ALL FITTING SHALL BE SOLDER-JOINT TYPE PER UNIFORM PLUMBING CODE AS ADOPTED BY THE CITY OF HUNTINGTON BEACH. ALL UNDERGROUND TUBING FROM THE METER TO THE BACKFLOW DEVICE SHALL BE SLEEVED AND BACKFILLED WITH TWO SACK SLURRY TO 12" BELOW FINISHED GRADE. TUBING AND BACKFLOW DEVICE SHALL BE SIZED PER THE CITY OF HUNTINGTON BEACH PLUMING INSPECTOR.

ITEM	DESCRIPTION	SPECIFICATION	QTY
①	REDUCE PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY DEVICE. SHALL BE APPROVED BY THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES.	02087.1	1
②	SOLDER JOINT UNION PER UNIFORM PLUMBING CODE AS ADOPTED BY THE CITY.		A.R.
③	A CONCRETE PAD SHALL BE CONSTRUCTED IF ONE DOES NOT ALREADY EXIST.	03300	A.R.

APPROVED:

Richard L. Smith
CITY ENGINEER

DATE: 6/23/99

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS



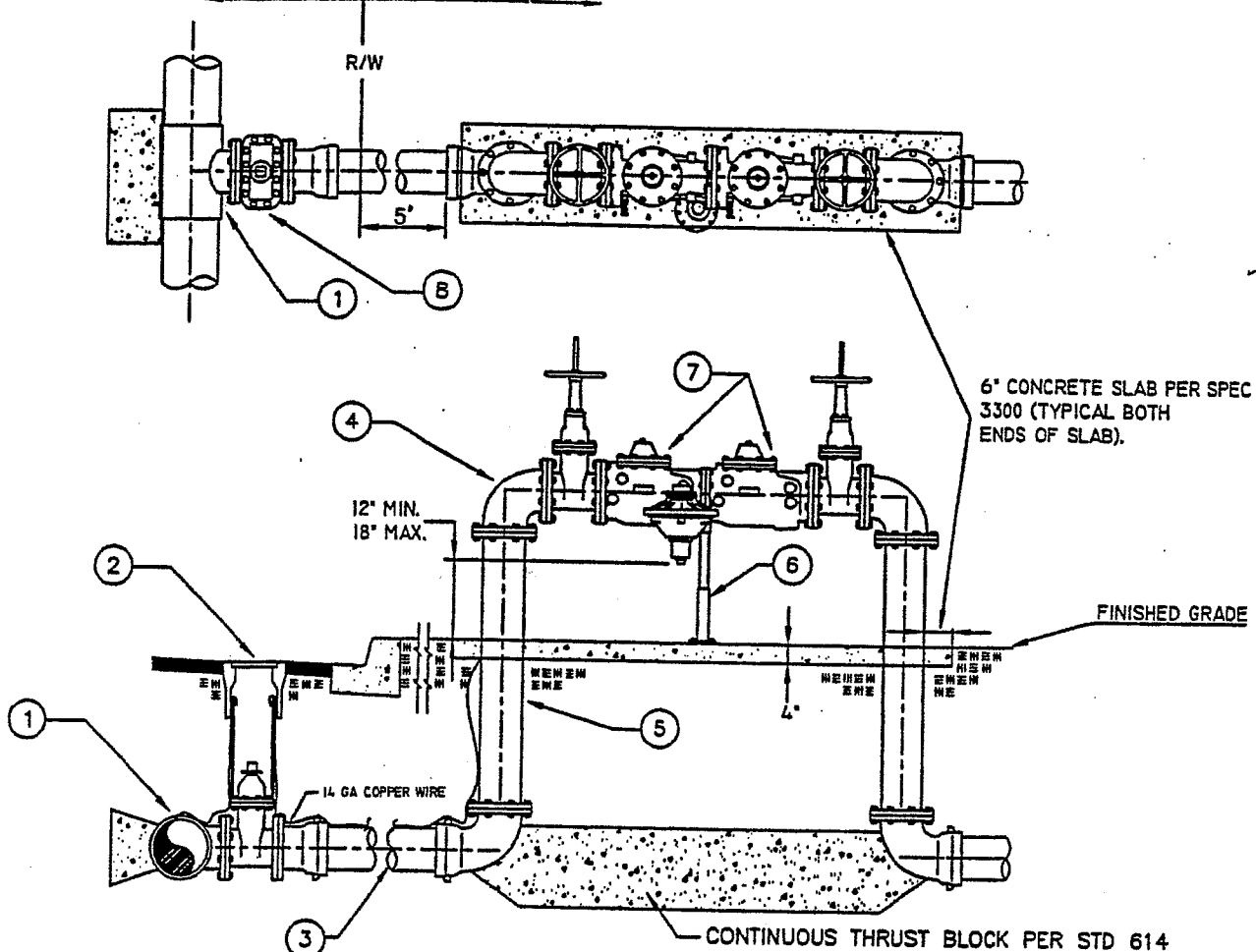
1" THROUGH 2" REDUCED PRESSURE
PRINCIPLE BACKFLOW DEVICE

STANDARD PLAN

609A

CITY'S RESPONSIBILITY

CONSUMER'S RESPONSIBILITY



GENERAL NOTES

1.) ALL NUTS AND BOLTS FOR GATE VALVES AND TAPPING TEE'S TO BE GRADE 316 STAINLESS STEEL. 2.) SEE STD. SPEC'S. SECTION 02087.1 BACKFLOW PREVENTION DEVICES. 3.) ITEMS LISTED MAY BE SUBSTITUTED WITH AN APPROVED EQUAL. 4.) WHEN USED AS FIRE SERVICE APPROVED F.M. LISTING REQUIRED. 5.) CONTRACTOR/CONSUMER TO SUPPLY HEAVY CHAINS AND LOCKS TO LOCK HANDWHEELS ON VALVES. 6.) BACKFILL BURIED PIPING ON CITY SIDE OF BACKFLOW PREVENTER IN UNPAVED AREAS WITH TWO SACK SLURRY TO 12" MIN. OVER PIPE. 7.) IMMEDIATELY AFTER INSTALLATION, RELOCATION OR REPAIR, ALL BACKFLOW PREVENTION DEVICES SHALL BE TESTED BY A CERTIFIED TESTER APPROVED BY THE CITY OF HUNTINGTON BEACH. NO SERVICE SHALL BE DEEMED ACCEPTABLE UNTIL THE DEVICE IS TESTED AND CERTIFIED AFTER INSTALLATION.

ITEM	DESCRIPTION	SPECIFICATION	QTY
①	TEE OR TAPPING TEE, FLANGE, PER STD PLAN No. 614	02085.9	1
②	VALVE BOX PER STD PLAN 612, 4" MINIMUM.	02085.9	1
③	P.V.C. PIPE AWWA C900, CL.150 4" MINIMUM.	02510.9	AR
④	90° ELBOW, FLANGED ABOVE GROUND, G.T. X FLANGED BELOW GROUND.	02510.1	4
⑤	D.I. PIPE, CL. 150 W/SCREWED ENDS, W/THREADED FLANGES, OR INTEGRAL FLANGED ENDS.	02510.1	1
⑥	ADJUSTABLE PIPE SUPPORT STD. PLAN No. 616.	02510.8	1
⑦	REDUCED PRESSURE PRINCIPLE ASSY. APPROVED BY CALIFORNIA DEPARTMENT OF HEALTH SERVICES.	02087.1	
⑧	GATE VALVE FLG. X PUSH ON END PER STD. PLAN No. 612.	02085.9	1

APPROVED:

R. R. Schmitt
CITY ENGINEER

DATE: 6/23/99

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS



REDUCED PRESSURE PRINCIPAL ASS'Y

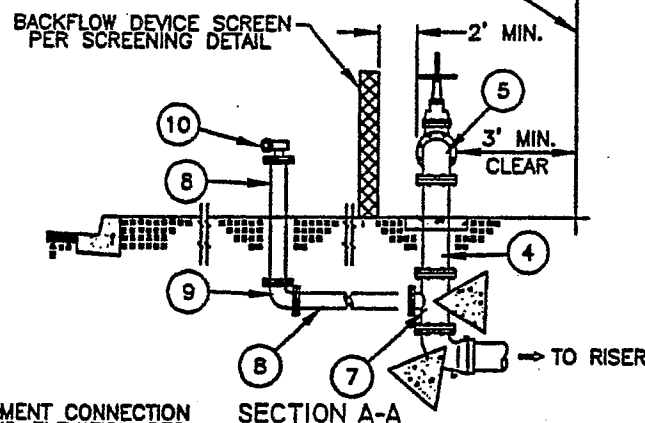
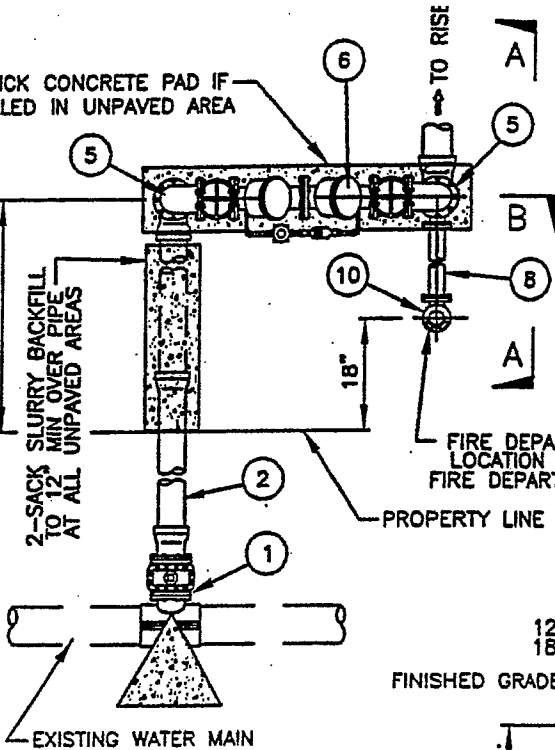
STANDARD PLAN

609

CITY'S RESPONSIBILITY
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CONSUMER'S RESPONSIBILITY

4" THICK CONCRETE PAD IF
INSTALLED IN UNPAVED AREA

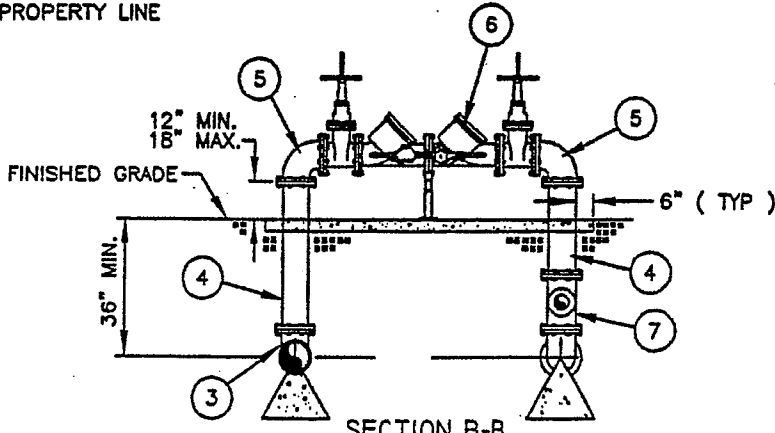
VARIES
2-SACK SLURRY BACKFILL
TO 12"
MIN OVER PIPE
AT ALL UNPAVED AREAS



FIRE DEPARTMENT CONNECTION
LOCATION AND ELEVATION PER
FIRE DEPARTMENT REQUIREMENTS

PROPERTY LINE

EXISTING WATER MAIN



SECTION B-B

NOTES:

1. ALL DUCTILE IRON SPOOLS SHALL BE ONE PIECE, CLASS 53, FLANGED, AND SHALL BE INSTALLED PER THE CITY OF HUNTINGTON BEACH STANDARD PLANS AND SPECIFICATIONS.
2. ALL FASTENERS SHALL BE TYPE 316 STAINLESS STEEL.
3. PIPE SUPPORT(S) ARE REQUIRED PER STANDARD PLAN 616.
4. ALL ABOVE GROUND PIPING, INCLUDING BACKFLOW DEVICE, SHALL BE PAINTED TO MATCH SURROUNDING AESTHETICS. THE MARKINGS, INDICATING FLOW, SIZE, MODEL NUMBER, AND SERIAL NUMBER SHALL BE PERMANENTLY FIXED TO THE BODY OF THE BACKFLOW DEVICE, AND MUST REMAIN VISIBLE AFTER PAINTING.
5. CONTRACTOR MUST POSSESS A C-34 CONTRACTORS LICENSE TO PERFORM THE FIRE SERVICE CONSTRUCTION.
6. ALL FITTINGS SHALL BE DUCTILE IRON.
7. ALL FITTINGS SHALL BE INSTALLED PER STANDARD PLAN 614.
8. APPROVED DEVICE.
9. NO MECHANICAL JOINT FITTINGS.
10. UPON COMPLETION OF INSTALLATION OF THE DEVICE, A TEST SHALL BE PERFORMED AND A CERTIFICATE OF ADEQUACY AND OPERATIONAL COMPLIANCE SHALL BE FURNISHED TO THE H.B.M.W.D. THE TEST SHALL BE PERFORMED BY A TESTING AGENCY APPROVED BY THE CITY OF HUNTINGTON BEACH.

ITEM	DESCRIPTION	SPECIFICATION	QTY
①	TEE AND VALVE OR TAPPING TEE AND VALVE, PER STD. 619	02085.9	1
②	PVC PIPE OR D.I. PIPE LATERAL. SEE APPROVED PROJECT DRAWINGS.	02510.9	AR
③	D.I. 90° ELL, CL.150, FLANGED X GRIP TIGHT, P.E. WRAPPED, PER STANDARD 614.	02510.1	1
④	D.I. FLANGED SPOOL, P.E. WRAPPED - LENGTH AS REQUIRED.	02510.1	2
⑤	D.I. 90° ELL FLG. X FLG.	02510.1	2
⑥	DOUBLE CHECK DETECTOR CHECK (4" MIN.), WITH 3/4" METER, NON-TOUCH READ	02087.2	1
⑦	D.I. FLANGED TEE, W/ 4" FLANGED BRANCH, P.E. WRAPPED, PER STANDARD 614.	02085.9	1
⑧	4" FLANGED D.I. SPOOL, P.E. WRAPPED - LENGTH AS REQUIRED.	02510.1	2
⑨	4" FLANGED 90° ELL, P.E. WRAPPED, PER STANDARD 614.	02510.1	1
⑩	4" MINIMUM DIAMETER D.I. FIRE DEPT. CONNECTION.	02510.1	1

APPROVED:

RE: [Signature]
CITY ENGINEER

DATE: 6/23/99

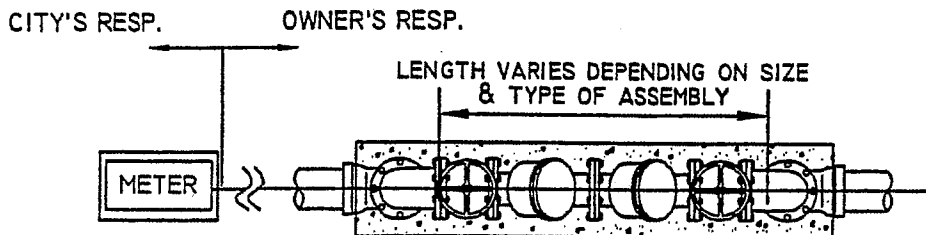
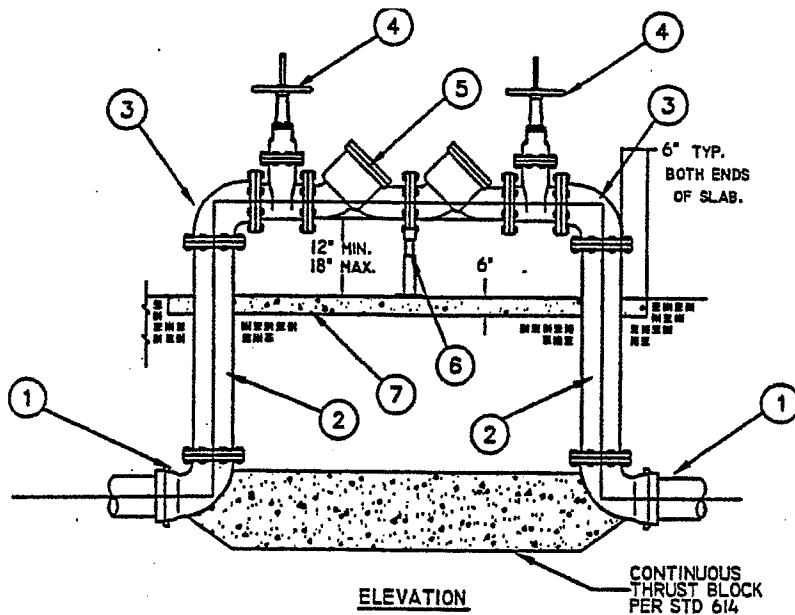
CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS



4" - 10" DOUBLE CHECK
DETECTOR ASSEMBLY

STANDARD PLAN
618



GENERAL NOTES

1.) ALL UNITS MUST BE IN THE LATEST EDITION OF THE LIST OF APPROVED BACKFLOW PREVENT DEVICE AS SUPPLIED BY THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES. 2.) NOTIFY THE H.B.M.W.D. PRIOR TO INSTALLATION OF UNIT. 3.) UPON COMPLETION OF THE INSTALLATION OF THE DEVICE, A TEST SHALL BE PERFORMED AND A CERTIFICATE OF ADEQUACY AND OPERATIONAL COMPLIANCE SHALL BE FURNISHED TO THE H.B.M.W.D. THE TEST SHALL BE PERFORMED BY A TESTING AGENCY APPROVED BY THE CITY OF HUNTINGTON BEACH. 4.) UNDERGROUND PIPING FROM METER TO BACKFLOW ASSEMBLY SHALL BE BACKFILLED AT ALL UNPAVED AREAS WITH TWO SACK SLURRY TO 12" MIN. OVER PIPE. WHEN ASSEMBLY IS LOCATED GREATER THEN 5 FEET FROM PROPERTY LINE. 5.) ALL BOLTS AND NUTS SHALL BE TYPE 316 STAINLESS STEEL.

ITEM	DESCRIPTION	SPECIFICATION	QTY
①	90° ELBOW. G.T. X FLG. BELOW GROUND	02510.1	2
②	DIP (CL 150) SPOOL FLG X FLG.	02510.1	AR
③	90° ELL FLG X FLG.	02510.1	2
④	SHUT-OFF VALVES. SEE SPECIFICATION NOTES.	02085.9	1
⑤	DOUBLE CHECK VALVE ASSEMBLY APPROVED BY STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES.	02087.2	1
⑥	ADJUSTABLE PIPE SUPORT STD. PLAN No.616.	02510.1	1
⑦	6" CONCRETE SLAB.	03300	AR

APPROVED:

R. E. Richbott
CITY ENGINEER

DATE: 6/23/99

CITY OF HUNTINGTON BEACH

DEPARTMENT OF PUBLIC WORKS



BACKFLOW PREVENTION DOUBLE CHECK

STANDARD PLAN

617